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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,152	10/31/2003	Flabio Cavalheiro		1479

7590 09/16/2005  
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EXAMINER

BALSIS, SHAY L

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/699,152	CAVALHEIRO, FLABIO	
	Examiner	Art Unit	
	Shay L. Balsis	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*[Handwritten signature]*

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## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: Page 1, line 6 should read ---09/975028---.

Appropriate correction is required.

### ***Claim Objections***

Claims 1 and 7 is objected to because of the following informalities:

Claim 1 recites the limitation "the base member" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 includes the trademark VELCRO. Trademarks are not permitted in the claims and must be removed and replace with the generic terminology, such as hook and loop material.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

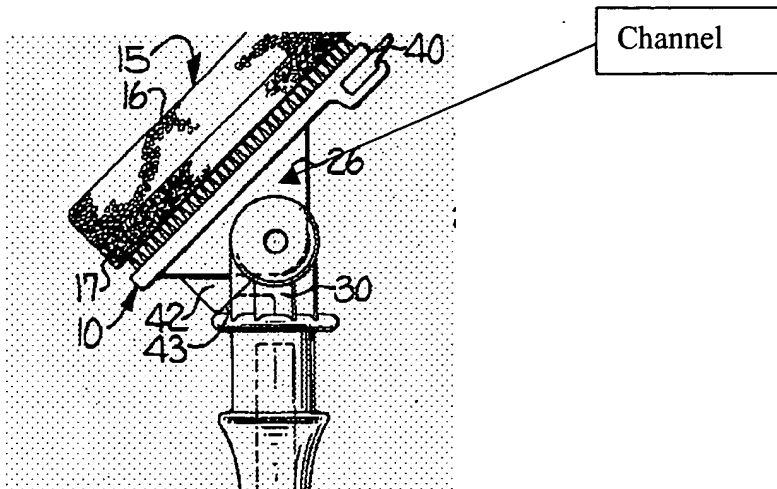
Claims 1-8, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham (USPN 4455705).

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Graham teaches a cleaning device comprising a cleaning member (figure 1, element 15) with a first surface having a scouring surface of loop material (figure 1, element 17) (claims 1 and 8) and a second surface comprising a sponge (figure 1, element 16) (claim 10). There is a base plate (figure 1, element 10) having a plurality of projections (figure 1, element 20) arranged in rows and columns for gripping the first surface of the cleaning member (claim 1, 6). The projections each have a top segment having opposing ends (figure 6, element 21) and an intermediate section separating the top segment from the base plate by a predefined distance (claim 2). The opposing ends of the projections each have free ends, which terminate at substantially a point, and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 7) (claims 2, 3, 4). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figures 6 and 7) (claim 3). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 7) (claim 5). The base plate comprises a handle member (figure 1, element 25) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is removable from the base plate (figure 5). The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger when the handle is grasped (see figure below) (claim 1). There is a connector (27, 32, 33) connecting the

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base member to the handle. The connector is capable of being disengaged for removing the handle from the base plate (figure 5) (claim 1).

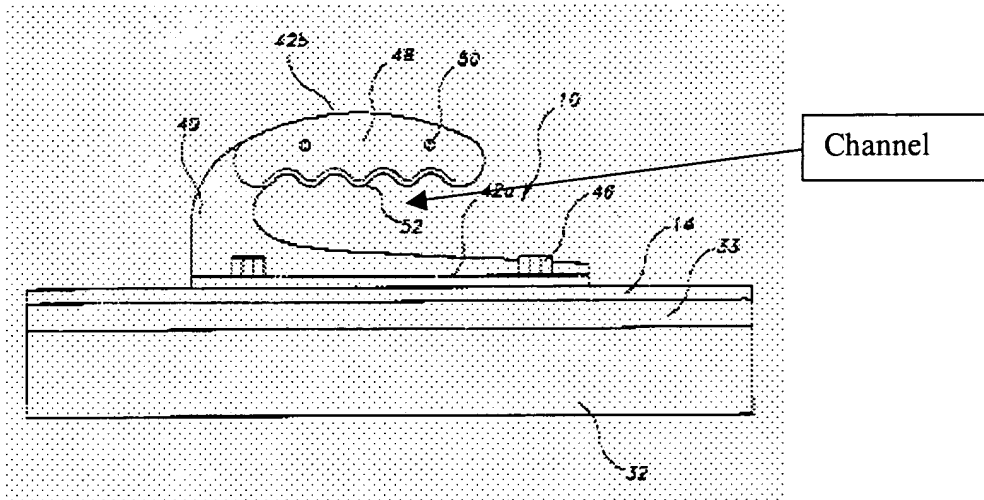


Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hintz et al. (USPN 6493899).

Hintz teaches a cleaning device comprising a cleaning member (figure 3, element 32) with a first surface having scouring surface of loops (figure 3, element 33) (claims 1) and a second surface comprising a sponge (figure 3, element 32). There is a base plate (figure 3, element 14) having a plurality of projections (figure 3, element 34) arranged in rows and columns for gripping the first surface of the cleaning member (claim 1). The projections each have a top segment having opposing ends and an intermediate section separating the top segment from the base plate by a predefined distance (claim 1). The base plate comprises a handle member (figure 3, element 40) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is removable from the base plate (figure 2). The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger

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when the handle is grasped (see figure below) (claim 1). There is a connector (46) connecting the base member to the handle. The connector is capable of being disengaged for removing the handle from the base plate (figure 2) (claim 1).



### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hintz et al. (USPN 6493899) in view of Lacey et al. (PGPub 2002/0125605).

Hintz teaches all the essential elements of the claimed invention however fails to teach the exact style of hook/projection is used. Lacey teaches fastening hooks that each have a top segment having opposing ends (figure 18, element 402) and an intermediate section (figure 18, element 404) separating the top segment from the base plate by a predefined distance. The opposing ends of the projections each have free ends, which

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terminate at substantially a point (figure 1, element 406), and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 18). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figure 18). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hintz with the hooks as taught by Lacey since the hooks of Lacey have increased loop-engaging and loop-retaining characteristics which leads to better fastener performance (paragraphs [0144-0147]. Additionally, the hooks as taught by Hintz and the hooks as taught by Lacey are equivalent structures known in the art. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the hooks of Lacey for the hooks of Hintz.

Claims 1-8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke (USPN 5003659) in view of Fay (USPN 2676758) and in view of Lacey et al. (PGPub 2002/0125605).

Paepke teaches a cleaning device comprising a cleaning member (figure 4, element 22) with a first surface having a scouring surface of loops material (figure 4, element 20) (claims 1a and 8) and a second surface comprising a sponge (figure 4, element 22) (claim 10). There is a base plate (figure 4, element 16) having a plurality of

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projections (figure 4, element 18) arranged in rows and columns for gripping the first surface of the cleaning member (claims 1 and 6). The base plate comprises a handle member (figure 2, element 12) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is integral with the base plate. The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger when the handle is grasped (figure 8, element R) (col. 3, lines 12-19) (claim 1) (see figure below). Paepke teaches all the essential elements of the claimed invention however fails to teach the exact style of hook/projection is used and also fails to teach that the handle is separable from the base plate.

Fay teaches a cleaning device comprising a handle (11) and base plate (1). There is a cleaning member (15) attached to the base plate. The handle comprises a channel (13) between the bottom surface of the handle and the base plate. There is a connector (12) connecting the handle and the base member. The connector allows the handle to be removed from the base plate.

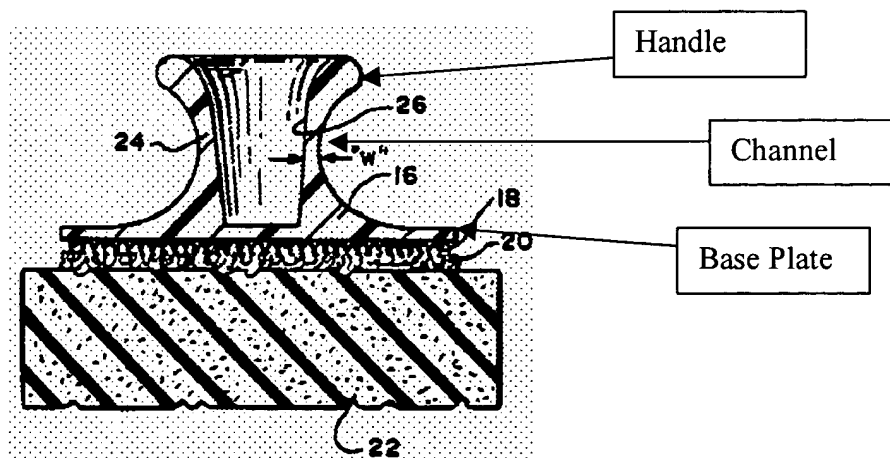
Lacey teaches fastening hooks that each have a top segment having opposing ends (figure 18, element 402) and an intermediate section (figure 18, element 404) separating the top segment from the base plate by a predefined distance. The opposing ends of the projections each have free ends, which terminate at substantially a point (figure 1, element 406), and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 18). The intermediate section having bottom end defined by the connection of the intermediate



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section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figure 18). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Paepke so that the handle is detachable from the base plate as taught by Fay since making integral parts separable is an example of a modification that has been considered to within the level of ordinary skill in the art to follow. *In re Dulberg* 129 USPQ 348, 349. Additionally, it would have been obvious to use the hooks as taught by Lacey as the fastening means on Paepke since the hooks of Lacey have increased loop-engaging and loop-retaining characteristics which leads to better fastener performance (paragraphs [0144-0147]. Additionally, the hooks as taught by Paepke and the hooks as taught by Lacey are equivalent structures known in the art. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the hooks of Lacey for the hooks of Paepke.



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Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Garcia (USPN 5419015) or Hintz et al. in view of Garcia (USPN 5419015) or Paepke in view of Fay and Lacey et al. in further view of Garcia (USPN 5419015).

Graham or Hintz or Paepke in view of Fay and Lacey all teach all the essential elements of the claimed invention however fail to teach a cleaning member with a third surface comprising a scouring pad. Garcia teaches a cleaning member that comprises a first surface of loop material (figure 8, element 32), a second surface of sponge material (figure 8, element 33) and a third surface of an abrasive material such as a scouring pad (figure 8, element 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a scouring pad to the sponge surface of Graham or Hintz or Paepke in view of Fay and Lacey's cleaning member as taught by Garcia so as to increase the cleaning capabilities and versatility of the device.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke in view of Fay and Lacey et al. and Garcia as applied to claim 9 above and further in view of Hortel et al. (USPN 6233771).

Paepke in view of Fay and Lacey and Garcia teaches all the essential elements of the claimed invention including that handle member including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is integral with the base plate. Paepke in view of Fay and Lacey and Garcia however fail to teach that the handle is a sphere (as stated in claims 11, option i). Hortel teaches a spherical handle attached to a cleaning member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spherical handle on Paepke in view of Fay and Lacey and Garcia's

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invention for ergonomic purposes since it would fit more comfortably in the user's hand and also create less stress and fatigue when in use.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke in view of Fay and Lacey et al. and Garcia as applied to claim 10 above and further in view of Hortel et al. (USPN 6233771).

Paepke in view of Fay and Lacey and Garcia teaches all the essential elements of the claimed invention including that handle member including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is integral with the base plate. Paepke in view of Fay and Lacey and Garcia however fail to teach that the handle is a sphere (as stated in claims 11, option i). Hortel teaches a spherical handle attached to a cleaning member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spherical handle on Paepke in view of Fay and Lacey and Garcia's invention for ergonomic purposes since it would fit more comfortably in the user's hand and also create less stress and fatigue when in use.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb  
9/8/05



MARK SPISICH  
PRIMARY EXAMINER  
~~GROUP 3400~~

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